



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20531
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/258,663	02/26/1999	RONNIE YARON	SANF-22100-U	4205

7590 11/27/2001
Carter Ledyard & Milburn
1401 Eye Street N W Suite 300
Washington, DC 20005

EXAMINER
SEALEY, LANCE W

ART UNIT PAPER NUMBER
2671

DATE MAILED: 11/27/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/258,663	YARON ET AL	
	Examiner	Art Unit	
	Lance W. Sealey	2671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 10/5/01.

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-15, 31-45, 57 and 58 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-7, 9, 10, 15, 31-37, 39, 40, 45, 57 and 58 is/are rejected.

7) ☒ Claim(s) 8, 11-14, 38 and 41-44 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

18) ☐ Interview Summary (PTO-413) Paper No(s) _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: _____

Serial Number: 09/258,663

Page 2

Art Unit: 2671

DETAILED ACTION

Allowable Subject Matter

1. Claims 8, 11-14, 38 and 41-44 are still objected to as being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of 35 U.S.C. 102(e) which forms the basis for all novelty rejections set forth in this Office action:

A person shall be entitled to a patent unless—

- (c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by applicant for patent.

3. Claims 1-2, 5-7, 9, 31-32, 35-37 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Migdal et al. ("Migdal '783", U.S. Pat. No. 5,760,783).
4. Migdal '783, in disclosing a system and method for computer modeling of 3D objects, also discloses, with respect to claim 1, a method of providing data blocks (LOD generation block 1050, FIG.10), describing three-dimensional terrain to a renderer (raster subsystem 224, FIG.2), the data blocks belonging to a hierarchical structure which includes blocks at a plurality of different resolution levels (col.9, ll.5-17), the method comprising:
 - receiving from the renderer one or more coordinates in the terrain along with indication of a respective resolution level (col.16, ll.1-21);

Serial Number: 09/258,663

Page 3

Art Unit: 2671

- providing the renderer with a first data block which includes data corresponding to the one or more coordinates from a local memory (col.9, ll.5-14);
 - downloading from a remote server one or more additional data blocks which include data corresponding to the one or more coordinates if the provided block from the local memory is not at the indicated resolution level (col.8, l.66-col.9, l.36 and FIG.2. Local memory: texture memory 226. Remote server: graphics display system 200).
5. Concerning claims 2 and 32, Migdal '783 discloses providing the first data block comprises providing the data block from the highest resolution level which includes data corresponding to the one or more coordinates (col.16, ll.1-21).
6. Regarding claims 5 and 35, Migdal '783 discloses receiving a plurality of coordinates included in a plurality of respective distinct blocks, and wherein downloading the one or more blocks comprises downloading blocks including data corresponding to at least some of the plurality of coordinates (col.8, l.66-col.9, l.36).
7. With respect to claims 6 and 36, Migdal '783 discloses downloading blocks in an order determined according to their resolution levels (col.8, l.66-col.9, l.36).
8. Concerning claims 7 and 37, Migdal '783 discloses downloading blocks of lower resolution levels before blocks of higher resolution levels (col.16, ll.1-21).
9. Regarding claims 9 and 39, Migdal '783 discloses downloading the blocks according to the order in which the coordinates were provided (col.16, ll.5-11).

Serial Number: 09/258,663

Page 4

Art Unit: 2671

10. Finally, concerning claim 31, Migdal '783 discloses an apparatus for providing data blocks describing three-dimensional terrain to a renderer (FIG.2), the data blocks belonging to a hierarchical structure which includes blocks at a plurality of different resolution levels, the apparatus comprising:

- a local memory, which stores data blocks corresponding to coordinates proximal to a current viewpoint of the renderer (texture memory 226, FIG.2);
- a communication link, through which the memory receives the data blocks from a remote server (arrow between bus 201 and geometry engine 222, FIG.2); and
- a processor which receives one or more specified coordinates along with indication of a respective resolution level from the renderer, provides the renderer with a first data block which includes data corresponding to the one or more specified coordinates from the local memory, and downloads over the communication link one or more additional data blocks which include data corresponding to the one or more coordinates if the first block is not from the indicated level (computer graphics display system 200, FIG.2).

11. Therefore, in view of the foregoing, the examiner concludes that the above claims have been anticipated by Migdal '783.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Serial Number: 09/258,663

Page 5

Art Unit: 2671

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 3-4, 10, 33-34 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Migdal '783 in view of *In re Gazda*, 104 USPQ 400 ("*Gazda*").

14. With respect to claims 3 and 33, Migdal '783 does not disclose downloading a block at a resolution level higher than the resolution level of the first block; nor does it disclose claims 4 and 34, downloading the blocks from a succession of resolution levels, from the level immediately higher than the resolution level of the first block up to the maximal existent resolution level on the server not above the indicated resolution level; nor does it disclose claim 10, downloading first the block for which the coordinates were provided last. Instead, consistent with applicants' claim 2, Migdal '783 provides the data block with the highest resolution first. But *Gazda* stands for the idea that it is obvious to reverse the order of the elements.

15. *Gazda* involved a clock wound by turning the steering wheel of a car (104 USPQ at 400). The applicant's clock featured a pawl-and-ratchet mechanism (104 USPQ at 401). The way the applicant's invention worked was that turning the steering wheel moved the ratchet wheel of the clock relative to the pawl to actuate a train of gears which wound the clock (104 USPQ at 401). The primary reference used to reject the applicant's claims featured an automobile clock that was

Serial Number: 09/258,663

Page 6

Art Unit: 2671

stationary relative to the car, being mounted on the stationary structure of the steering column (instead of movable with the wheel as in the applicant's device), and was wound through a gearing connection by turning the steering wheel in one direction only (104 USPQ at 401). A secondary reference was used to reject the pawl-and-ratchet element of the applicant's claim (104 USPQ at 401).

16. The CCPA reasoned that whether the clock was mounted on the steering wheel or the steering wheel post "was only a matter of choice amounting to a mere reversal of parts", and the CCPA further agreed with the examiner who argued that the location of the ratchet means at the input end of the winding connection instead of the output end was "merely a matter of choice and expediency" (104 USPQ at 402).

17. Applying the reasoning of *Gazda* to this application, downloading a block at a resolution level higher than the resolution level of the first block is a matter of choice amounting to a mere reversal of which block is downloaded first. Therefore, it would have been obvious to one of ordinary skill in the art at the time this invention was made to make this change.

18. Therefore, in view of the foregoing, claims 3-4, 10, 33-34 and 40 are rendered unpatentable by Migdal '783 and *Gazda*.

19. Claims 15, 18, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Migdal '783 in view of Migdal et al. ("Migdal '702," U.S. Pat. No. 5,886,702).

20. With respect to all of these claims, Migdal '783 does not disclose downloading the blocks

Serial Number: 09/258,663

Page 7

Art Unit: 2671

via the Internet. However, Migdal '702 discloses this element at col.10, ll.27-41.

21. Therefore, it would have been obvious to one of ordinary skill in the art to have modified Migdal '783 to effect downloading over the Internet. Such a modification to Migdal '783 would increase flexibility by expanding the sources of images that describe the terrain of places to which pilots want to fly.

22. Accordingly, in view of the foregoing, claims 15, 18 and 45 are rendered unpatentable by Migdal '783 and Migdal '702.

23. Claims 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Migdal '783 in view of O'Neill (U.S. Pat. No. 4,359,733).

24. With respect to these two claims, none of the previously cited prior art discloses relating coordinates or the data blocks to the predetermined course of a flight vehicle. However, O'Neill discloses claim 56 at col.56, ll.3-8 and claim 57 at col.56, ll. 12-25 (O'Neill discloses the "predetermined" course of aircraft in the sense that the aircraft about which the O'Neill invention collects data knows where it is going before the O'Neill satellite collects statistics on it).

25. Therefore, it would have been obvious to one of ordinary skill in the art to have combined O'Neill with Migdal '783 in order to store flight vehicle courses. Such a modification to O'Neill provides flight environment information for the stored O'Neill flight course information.

Response to Remarks

Serial Number: 09/258,663

Page 8

Art Unit: 2671

26. The applicant asserts that the examiner failed to show, in the last Office Action, the disclosure of downloading data blocks from a remote server in the prior art, as was disclosed in claims 1 and 31 of this application. Indeed, the examiner admits that the references cited in Migdal '783 in the last Office Action fail to show this claim limitation. However, this claim limitation is disclosed by Migdal '783 in col.6, ll.55-57.

27. As for the applicant's seeming implication that the holding of *Gazda* applies only to clocks attached to steering wheels of cars ("the holding of *Gazda* is far more restrictive, dealing with a specific structure," Amendment, p.4), such an argument virtually restricts the usefulness of court cases to determine obviousness to the specific case the court decides. This is clearly not the reality in the court systems of the United States, where lawyers and judges daily transcend facts of prior decided cases, as they were all taught to do in law school, in order to rely on the rationale behind past judicial decisions. Therefore, it is appropriate generally to apply judicial precedent in determining present and future questions of obviousness, and to apply *Gazda* in particular to the rejection of claims 3-4, 10, 33-34 and 40.

Action is Final, Necessitated by Amendment

28. The applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Serial Number: 09/258,663

Page 9

Art Unit: 2671

29. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lance Sealey whose telephone number is (703) 305-0026. The examiner can normally be reached Monday-Friday from 7:00 am to 3:30 pm EST.

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached on (703) 305-9798. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

32. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office at (703) 306-0377.



MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800